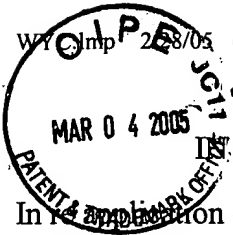


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2154



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Rhoads et al.

Application No.: 09/547,664

Filed: April 12, 2000

For: SYSTEM FOR LINKING FROM
OBJECTS TO REMOTE RESOURCES

Examiner: V. Vu

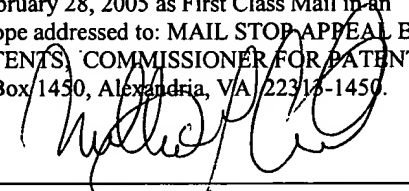
Date: February 28, 2005

Art Unit 2154

Confirmation No. 6242

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on February 28, 2005 as First Class Mail in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.



William Y. Conwell
Attorney for Applicants

TRANSMITTAL LETTER

MAIL STOP APPEAL BRIEF - PATENTS
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Enclosed for filing in the above-captioned matter are the following:

- ☒ Request for Reinstatement of Appeal.
- ☒ Second Appeal Brief.
- ☒ If any extension of time is required please consider this a petition therefor.
- ☒ Please charge any fees which may be required in connection with filing this document and any extension of time fee, or credit any overpayment, to Deposit Account No. 50-1071.

Date: February 28, 2005

CUSTOMER NUMBER 23735

Phone: 503-469-4800
FAX 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION

By



William Y. Conwell
Registration No. 31,943

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

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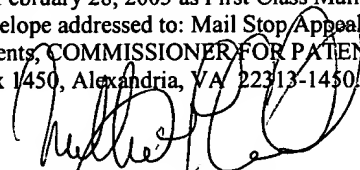
Date: February 28, 2005

Art Unit 2154

Confirmation No. 6242

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on February 28, 2005 as First Class Mail in an envelope addressed to: Mail Stop Appeal Brief - Patents, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.


William Y. Conwell
Attorney for Applicant

REQUEST FOR REINSTATEMENT OF APPEAL

Mail Stop Appeal Brief - Patents
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the Action re-opening prosecution, mailed December 3, 2004,
applicants request reinstatement of the appeal.

A Second Appeal Brief is submitted herewith.

No fee is believed to be due in connection with this request. However, if any
further fee is required, please charge same to deposit account 50-1071.

Date: February 28, 2005

CUSTOMER NUMBER 23735Phone: 503-469-4800
FAX 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION

By 

William Y. Conwell
Registration No. 31,943



PATENT

In re application of:

Rhoads et al.

Application No.: 09/547,664

Filed: April 12, 2000

For: SYSTEM FOR LINKING FROM
OBJECTS TO REMOTE RESOURCES

Examiner: V. Vu

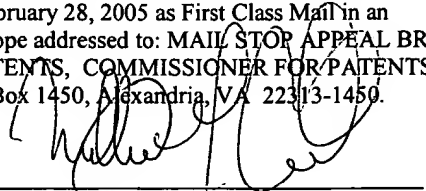
Date: February 28, 2005

Art Unit 2154

Confirmation No. 6242

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on February 28, 2005 as First Class Mail in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.


William Y. Conwell
Attorney for Applicants

SECOND APPEAL BRIEF

Mail Stop: Appeal Brief - Patents
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This brief accompanies a Request for Reinstatement of Appeal submitted herewith. No fee is believed to be due, as fees for a Notice of Appeal and for an Appeal Brief have already been submitted in this matter. However, if any further fee is required, please charge same to deposit account 50-1071 (see transmittal letter).

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I. REAL PARTY IN INTEREST

The real party in interest is Digimarc Corporation, by an assignment from the inventors recorded at Reel 11021, Frames 636-640, on July 31, 2000.

II. RELATED APPEALS AND INTERFERENCES

Application 09/531,076 is related and was appealed. However, after consideration of applicants' Appeal Brief, the Office re-opened prosecution by issuing a new, non-final action.

(The '076 application is the parent of the present application. The specification of the '076 application is essentially identical to the spec of the present application. The claims originally filed in the '076 application are essentially identical to the claims originally filed in the present application. A restriction requirement was issued in the present application. Original claims 7-16 are pursued in the present application; original claims 1-5 are pursued in the '076 application.)

III. STATUS OF CLAIMS

Claims 7-16 are rejected and appealed.

In the first Action, claims 1-6 were made subject to a restriction requirement that applicants traversed. In neither the second (Final) Action nor the third (Non-Final) Action did the Examiner expressly make the restriction requirement final,¹ so these claims presently stand "withdrawn" rather than canceled. The Examiner is authorized to cancel these claims by Examiner's Amendment, if the requirement is made final.

IV. STATUS OF AMENDMENTS

All earlier-filed amendments have been entered.

V. BACKGROUND AND SUMMARY OF CLAIMED SUBJECT MATTER

According to one aspect, the present invention relates to networked computer systems that are responsive to watermark data to initiate delivery of audio, video, advertisements, or software updates.

According to another aspect, the present invention relates to apparatuses comprising watermark detectors and watermark-related software programs, which are operable to transmit packets of data to remote systems, where data packets comprise certain specified data.

By way of background, the present assignee markets a technology under the trademark MediaBridge in which digital watermarks are used to mark objects.² Watermarks are desirable as a marking technology for a number of reasons, including their applicability to both physical and electronic objects, and their human imperceptibility (*e.g.*, digital watermarks don't require the dedicated "real estate" of a bar code, and don't interrupt the visual aesthetic of a graphic design with a stark black and white data symbology).

Digital watermarking technology (also known as steganography) encompasses a great variety of techniques by which plural bits of digital data are hidden in some other object, without leaving human-apparent evidence of alteration or data representation. Thus, a photograph can be digitally watermarked to convey a plural-bit digital payload. The photograph looks essentially pristine to a human viewer, but a suitably-programmed processor can decode the plural-bit payload from image data corresponding to the photograph.³

Digital watermarks can take many forms - several are detailed in patent documents incorporated-by-reference in the present specification.⁴ One form of digital watermarking favored by the present Applicants involves making subtle changes to the luminance of pixels comprising a photograph or other graphic to thereby encode a hidden multi-bit auxiliary data payload. The changes are too slight to be perceptible to human viewers.⁵ But when such a

¹ *C.f.* MPEP § 821.01.

² *See, e.g.*, incorporated-by-reference application 60/164,619 (*c.f.*, page 1, line 15, and incorporated by language at page 44, lines 24-26) at page 1, lines 3-6.

³ *See, e.g.*, specification, page 4, line 27 through page 5, line 2.

⁴ *See, e.g.*, specification, page 1, lines 4-17; page 3, line 22 through page 4, line 2; and the incorporation by reference language found at page 44, lines 24-26.

⁵ *See, e.g.*, incorporated-by-reference application 09/503,881 cited at page 3, line 25 (now patent 6,614,914).

watermark-encoded graphic is computer analyzed, the multi-bit payload can be recovered, and a corresponding action can be triggered thereby. In accordance with certain aspects of the present invention, the corresponding actions that may be triggered include initiating the delivery of audio or video content, advertisement data, or software updates.

The invention of independent claim 7 (unchanged during prosecution) is an apparatus that includes a watermark detector and a watermark-related software program, and is operable to transmit a packet of data to a remote system.⁶ The claim requires that the packet of data comprise (a) an identifier of said [watermark-related] software program, and (b) at least a portion of a detected watermark.⁷

By reference to the software program identifier included in the packet, a system that receives the packet can tailor its responsive action in accordance with the originating software program - as well as in accordance with the watermark data. In one particular embodiment, the watermark data is routed to one of plural "product handlers" based on this software identifier.⁸

To illustrate, consider a packet that conveys detected watermark data "6A83F." The responding system may respond one way if it knows that the originating software program was an audio player, and in another way if it knows that the originating software program was Windows Explorer. In the former case, the responding system may initiate download of a WindowsMedia audio file corresponding to "6A83F."⁹ In the latter case the responding system may return metadata corresponding to a file marked with the identifier "6A83F" (e.g., proprietor, creation date, licensing terms, exposure data, subject, etc.).¹⁰ By transmitting an identifier of the software program in the packet with watermark data, the claimed apparatus can trigger an action that corresponds to the marked object and is appropriate to the involved software program.

⁶ See, e.g., Fig. 3, which shows a watermark detector at box 30, and a watermark-related software program at box 28c.

⁷ That the information is conveyed in a "packet" is disclosed, e.g., in table on page 8 of the specification, and by page 19, lines 24-25; page 27, lines 23-25; page 38, line 8; and page 43, lines 19-22. Regarding the packet conveying an identifier of the software application, see page 7, lines 5-8 (reference to "originating application 28c). See also specification at page 19, lines 1-3, page 36, lines 7-14; and page 37, lines 5-8. Regarding the packet also conveying detected watermark data, see, e.g., page 7, lines 14-17; page 20, lines 10-12 and 22; page 32, lines 9-10; and page 37, lines 9-13.

⁸ See, e.g., specification at page 19, line 22 through page 20, line 12.

⁹ See, e.g., specification at page 6, lines 20-23.

¹⁰ See, e.g., specification at page 27, lines 25-28.

The invention of independent claim 10 (also unchanged during prosecution) is an apparatus that includes a watermark detector and a watermark-related software program, and is operable to transmit a packet of data to a remote system. Claim 10 requires that the packet of data comprise (a) a context or environment identifier,¹¹ and (b) at least a portion of a detected watermark. (Claim 10 differs from claim 7 only in item ‘(a)’.)

Again, the inclusion of the context/environment identifier allows the claimed apparatus to trigger an action that more intelligently responds to the watermarked object.

Consider a drivers’ license that is watermarked with identification of the owner. If presented to an email kiosk 12 at an airport, the decoded watermark may be used to look-up an email account corresponding to that individual, and download new mail. If the same drivers’ license is presented to a check-in kiosk, the decoded watermark may be used to look up that person’s flight reservation and issue a seat assignment. *In both cases the kiosks can be essentially identical.* However, the former kiosk includes packet data identifying itself as used in an email context, and the latter kiosk includes packet data identifying itself as used in a check-in context.¹² By reference to this differing context data, different actions can be triggered.

As another example, consider audio from which watermark data is decoded. If the apparatus sends the watermark data to a remote system with an indication that it was detected in an “office” environment, a first action may be triggered. If the same watermark is sent with an indication that it was detected in a “car” environment, a different action may be triggered.¹³

The invention of independent claim 13 (also unchanged during prosecution) is a networked computer system,¹⁴ responsive to watermark data sent from a remote client application,¹⁵ to initiate delivery of audio or video data.¹⁶

¹¹ See, e.g., specification at page 3, lines 7-10; page 26, lines 25-26; page 32, lines 12-18; page 37, lines 14-18; and page 38, lines 32-33.

¹² Specification, page 26, line 25 through page 27, line 5.

¹³ See, e.g., specification, page 37, lines 16-18.

¹⁴ See, e.g., Product Handler box 16 in Fig. 2; specification at page 5, line 25 through page 7, line 8.

¹⁵ See, e.g., Fig. 4, which illustrates a Transaction Request sent from a remote client application (e.g., “Product/Detector” to a Product Handler. See also, specification at page 5, lines 25-26; page 6, lines 28 through page 7, line 2; page 7, lines 21-23; page 20, lines 10-16, 21-23 and 25-27; page 22, lines 26-28; page 23, lines 1-8; page 27, lines

¹⁶ See, e.g., specification at page 6, lines 20-22; page 9, line 28 to page 10, line 2; page 28, line 21 to page 29, line 8.

One example of this is a print advertisement which, when presented by a user to a web-cam, triggers delivery of a WindowsMedia audio file to the user.¹⁷ (The claimed network computer system of claim 13 comprises the apparatus that both receives the watermark data from the user's computer, **and** initiates delivery of the audio file.)

The invention of independent claim 15 (also unchanged during prosecution) is a networked computer system, responsive to watermark data sent from a remote client application, to initiate delivery of advertisement data¹⁸ to the remote computer.¹⁹ (Claim 15 differs from claim 13 only in its concluding limitation – which also specifies the destination of the data initiated by the watermark.)

The invention of independent claim 16 (also unchanged during prosecution) is a networked computer system, responsive to watermark data sent from a remote client application, to initiate delivery of updated software²⁰ to the remote computer. (Claim 16 differs from claim 15 only in its delivery of “updated software” rather than “advertisement data.”)

Among other applications, this latter invention can be employed to check for updates to user software whenever the user's computer (*i.e.*, the remote computer) communicates with the networked computer system, and to push updated software to the user, if available.

VI. GROUNDINGS OF REJECTION

Claims 13-16 stand rejected as anticipated by Moskowitz (5,822,432).

Claims 7-16 stand rejected as obvious over Doyle (5,838,906) in view of Moskowitz.

VII. ARGUMENT

Claims 13-16 stand rejected as anticipated by, or obvious in view of, Moskowitz (5,822,432). (The remaining claims stand rejected over Moskowitz in combination with Doyle.)

¹⁷ See, *e.g.*, specification, page 4, lines 27-29; and page 6, lines 20-23.

¹⁸ See, *e.g.*, page 10, line 2.

¹⁹ See, *e.g.*, reference to information being “returned” to the customer, at page 9, lines 24-26.

²⁰ See, *e.g.*, specification at page 6, lines 1-6 and 12-16; page 7, line 25; page 10, line 1; page 22, line 8; page 23, lines 21-22.

Moskowitz is understood to disclose digitally watermarking content (e.g., audio) with information specifying terms of permitted use. Compliant equipment encountering such watermarked content would then use the content only in manners consistent with such specifications. Such equipment could exchange information with the source of such content, reporting on usage, etc. (e.g., for billing purposes).

As detailed below, Moskowitz does not teach each element of claims 13-16.

1. **Claim 13 (§ 102 – Moskowitz)**

Claim 13 is an independent claim that reads as follows:

13. A networked computer system, responsive to watermark data sent from a remote client application to initiate delivery of audio or video data.

Moskowitz does not teach an arrangement that is “responsive to watermark data ... to initiate delivery of audio or video data.”

Rather, Moskowitz’s watermark information is understood to be delivered *with* audio or video data. It is not involved in *initiating* such delivery *in response* to watermark data, as required by the claim.

The Examiner cites col. 9, lines 17-40 as allegedly teaching this feature. It does not.

The cited excerpt reads:

These "metering" watermarks could be dependent on a near continuous exchange of information between the transmitter and receiver of the metered information in question. The idea is that both sides must agree to what the watermark says, by digitally signing it. The sender agrees they have sent a certain amount of a certain title, for instance, and the receiver agrees they have received it, possibly incurring a liability to pay for the information once a certain threshold is passed. If the parties disagree, the transaction can be discontinued before such time. In addition, metering watermarks could contain account information or other payment information which would facilitate the transaction.

Watermarks can also be made to contain information pertaining to geographical or electronic distribution restrictions, or which contain information on where to locate other copies of this content, or similar content. For instance, a watermark might stipulate that a recording is for sale only in the United States, or

that it is to be sold only to persons connecting to an online distribution site from a certain set of internet domain names, like ".us" for United States, or ".ny" for New York. Further a watermark might contain one or more URLs describing online sites where similar content that the buyer of a piece of content might be interested in can be found.

As will be recognized, such use of watermarks to effect “software or content metering services”²¹ contemplates that the watermarks are conveyed *with* the content (e.g., “indicating percent of content transferred”²²) – not used as a trigger to *initiate* its delivery.

Regarding the final sentence of the quoted Moskowitz excerpt, this refers to an arrangement in which a watermark conveys the URL for a site “where similar content that the buyer of a piece of content might be interested in” can be found. This does not anticipate the claimed networked computer system that is “responsive to watermark data sent from a remote client application, to initiate delivery of audio or video data.”

Since the art fails to teach the claimed arrangement, the anticipation rejection of claim 13 should be reversed.

2. **Claim 14 (§ 102 – Moskowitz)**

Claim 14 depends from claim 13, and is similarly allowable. Claim 14 is also independently allowable. The claim reads

14. The networked computer system of claim 13, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of audio or video data to said remote computer.

The claim thus requires that the watermark data that initiates delivery of the audio or video content to the remote computer is sent from a software program *on the remote computer itself*.

Again, Moskowitz does not teach such an arrangement. The Examiner has not cited any passage in Moskowitz that is alleged to teach it. Indeed, the November 5, 2003, the March 4,

²¹ Moskowitz at col. 8, lines 66-67.

²² Moskowitz at col. 9, lines 13-14.

2004, and the December 3, 2004 Actions are all silent on this limitation, suggesting that it may not have been given consideration by the Office.

Again, the Examiner's reliance on Moskowitz's teaching of content watermarked with a URL is not on-point. Consider a networked computer system comprising (1) the Examiner's desktop computer, and (2) a computer used by a music provider, e.g., iTunes. If iTunes sent to the Examiner's computer a Beatles song watermarked with a link pointing to a Beatles-related video on Amazon.com, this does not initiate delivery of audio or video data. And it doesn't involve delivery of anything to iTunes – as would be required by the claimed arrangement. (The claimed arrangement requires that the computer that sends the watermark data be the one to which audio or video data is delivered.)

Again, since the art fails to teach the claimed arrangement, the anticipation rejection of claim 14 should be reversed.

3. **Claim 15 (§ 102 – Moskowitz)**

Claim 15 is an independent claim that reads as follows:

15. A networked computer system, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of advertisement data to said remote computer.

Again, Moskowitz does not teach an arrangement that is “responsive to watermark data ... to initiate delivery” of data. Rather, as discussed above in connection with claim 13, Moskowitz teaches an arrangement in which the watermark data is delivered *with* audio or video data.

Moreover, Moskowitz is silent about “advertising.” The term is not used in his specification.

Again, in none of the three Actions has the Examiner cited any passage in Moskowitz that is alleged to teach anything concerning advertising data. Again, all three Actions are silent on this limitation, suggesting that it may not have been given consideration by the Office.

Again, since the art fails to teach the claimed arrangement, the anticipation rejection of claim 15 should be reversed.

4. **Claim 16 (§ 102 – Moskowitz)**

Claim 16 is an independent claim that reads as follows:

16. A networked computer system, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of updated software to said remote computer.

Again, Moskowitz does not teach an arrangement that is “responsive to watermark data ... to initiate delivery” of data. Rather, as discussed above in connection with claim 13, Moskowitz teaches an arrangement in which the watermark data is delivered *with* software data.

Moreover, Moskowitz is silent about “*updated* software data.” Updating of software is not referenced, or contemplated, by his specification.

Again, the Examiner has not cited any passage in Moskowitz that is alleged to teach anything concerning updating of software. Again, all three Actions are silent on this limitation, suggesting that it may not have been given consideration by the Office.

Again, since the art fails to teach the claimed arrangement, the anticipation rejection of claim 16 should be reversed.

5. **Claim 7 (§ 103: Doyle + Moskowitz)**

Claim 7 – like claims 8-12 – stands rejected as obvious over Doyle (5,838,906) in view of the just-discussed Moskowitz. The rejection fails to establish *prima facie* obviousness.

Claim 7 reads:

7. An apparatus including a watermark detector and a watermark-related software program, operable to transmit a packet of data to a remote system, said packet of data comprising (a) an identifier of said software program, and (b) at least a portion of a detected watermark.

The primary reference, Doyle,²³ discloses a system for automatically invoking an external application (*e.g.*, a JPEG viewer program) to interact with and/or display an embedded object found in a hypermedia document.

As explained by Doyle, and illustrated by his Fig. 1, a hypermedia document can include various elements, such as a link to an image, a link to a sound, and a link to text. Each of these three types of data objects may require use of a different application program to view, or act upon, their respective data.

The Examiner cites Doyle for its teaching (col. 12, line 54 – col. 13, line 31) of embedding a tag within an HTML document to identify the application program needed to view, or act upon, each linked data object. The tag may state, for example, “application/x-vis” - meaning that an application program named ‘x-vis’ is to be used to handle the object at the URL specified by the link.

It will be recognized that Doyle does not teach a “*software program, operable to transmit ... an identifier of said software program,*” as required by claim 7. Doyle does not teach a software program that transmits an identifier of itself, as specified by the claim. Rather, Doyle teaches a hypertext markup language document that includes a tag specifying whatever program is required to view or act upon a file found at a specified URL. The tag does not specify the program that transmits the identifier (*i.e.*, whatever web server process 218 (*e.g.*, *Apache*) is running on Doyle’s server computer 204 in his Fig. 5 – the process that transmits the tag).

Thus, even if Doyle were combined with Moskowitz, the claimed arrangement could not result.

A second problem with the obviousness rejection of claim 7 is the Examiner’s deficient rationale for combining Doyle and Moskowitz. Ignoring the shortcoming of Doyle noted above, but noting Doyle’s failure to provide any teachings concerning watermarks (*i.e.*, the claimed “watermark detector,” “watermark-related software program,” and “detected watermark”), the Action states only:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize watermark data in Doyle with because it would have

²³ The Doyle patent is the patent asserted against Microsoft in *Eolas v. Microsoft*. The patent is currently the subject of a Commissioner-Ordered Reexam Proceeding.

*enabled distributing copyrighted contents to a plurality of users in the network.*²⁴

This rationale evidences hindsight, rather than obviousness. There is no reference to any suggestion in the art leading to the arrangement proposed. There is no reference to any problem with Doyle's system for which Moskowitz proposes a solution. The two references do not even concern the same field of endeavor. Rather, it appears the Action has started with applicants' claim, and worked backwards to bootstrap a justification.

Either of the above two grounds of traverse is sufficient to show that the Office has failed to establish *prima facie* obviousness. Accordingly, the rejection of claim 7 should be reversed.

6. Claim 8 (§ 103: Doyle + Moskowitz)

Claim 8 depends from claim 7, and is similarly allowable. Claim 8 is also allowable independently of claim 7. The claim reads:

8. The apparatus of claim 7, wherein said packet of data also includes address information identifying the apparatus.

Claim 8 thus requires an apparatus operable to transmit a packet of data to a remote system, where the packet comprises:

- (a) an identifier of said [watermark-related] software;
- (b) at least a portion of a detected watermark; and
- (c) address information identifying the apparatus.²⁵

The art fails to teach an apparatus that transmits address information identifying the apparatus, together with the other enumerated information, in packet form.

There is a reference to "addresses" in Moskowitz's specification. It is found in the very first paragraph in column 1, and states:

The watermarks can also serve to allow for secured metering and support of other

²⁴ December 3, 2004, Action, page 4, lines 3-6.

²⁵ Support for this limitation is found, *e.g.*, at page 19, lines 1-3.

distribution systems of given media content and relevant information associated with them, including addresses, protocols, billing, pricing or distribution path parameters, among the many things that could constitute a "watermark."

However, this sentence is understood to indicate that the “addresses” are addresses associated with the *media content*. There appears to be no teaching of address information “identifying the apparatus” that sent the packet of data, and there is certainly no teaching of transmitting address information identifying an apparatus in the same packet as an identifier of watermark-related software, as required by claim 8.

Doyle does not appear to have any teaching remedying this deficiency. (The Examiner notes that a file sent from a server to a client browser includes the client’s IP address. However, the “address” required by claim 8 is the address of the (claim 7) apparatus having a watermark detector, and which apparatus is operable to transmit an identifier of a watermark-related software program. Doyle has no teaching on this point.)

Accordingly, even if Doyle and Moskowitz were combined, the invention of claim 8 could not result.

Again, the Action has again failed to present a cognizable rationale that would have led an artisan to any arrangement in which an apparatus sends a packet of data including address information identifying itself. The Action is silent on any motivation for such a modification to the art. (The same deficient one-sentence justification quoted above in connection with claim 7 was also offered for claims 8-12.)

Again, *prima facie* obviousness has not been established, and reversal of the rejection of claim 8 is thus required.

7. Claim 9 (§ 103: Doyle + Moskowitz)

Claim 9 also depends from claim 7, and is similarly allowable. Claim 9 is also allowable independently of claim 7. The claim reads:

9. A system comprising the apparatus of claim 7 together with said remote system, the remote system including a router and plural handlers, the router directing data from said packet to one of said handlers depending on data within said packet.

The Examiner says that Doyle teaches a router. However, no reference to a router is found in Doyle's text.

Routers, *per se*, are well known. However, the limitation of claim 9 goes beyond mere recitation of a router.

Claim 9 additionally requires "plural handlers."²⁶ Limitations in the claim relating to the "plural handlers" were entirely ignored by the Examiner.

(Applicants' specification describes that plural handlers may be desired for different purposes. For example, they may be geographically distributed.²⁷ Or different handlers may be dedicated to different data. For example, one may respond to watermarks found in audio, and another may respond to watermarks found in print advertising.²⁸ Likewise, one may respond to advertising placed by Ford, and another may respond to advertising placed by Chevrolet.²⁹ Or one may respond to advertising appearing in *Wired* magazine, and another may respond to advertising placed in *Time* magazine.³⁰)

No "plural handlers" are taught by the cited art. No assertion to the contrary is made by the Examiner.

Again, the rejection falls short. The cited art cannot be jig-sawed together to yield the claimed apparatus. And no rationale is provided that would have led an artisan to the arrangement claimed. Again, the rejection must be reversed.

8. Claim 10 (§ 103: Doyle + Moskowitz)

Claim 10 is an independent claim that reads as follows:

10. An apparatus including a watermark detector and a watermark-related software program, operable to transmit a packet of data to a remote system, said packet of data comprising (a) a context or environment identifier, and (b) at least a portion of a detected watermark.

²⁶ Support for this limitation is found, e.g., in Fig. 4 (which illustrates "Product Handler(s)"), and in the specification at page 6, line 28 to page 7, line 8.

²⁷ See specification at page 6, line 8.

²⁸ See specification at page 7, lines 1-2.

²⁹ See specification at page 7, lines 2-4.

³⁰ See specification at page 7, lines 4-5.

(It will be recognized that this claim is identical to claim 7, except that the limitation “a context or environment identifier” has been substituted for “an identifier of said software program.”)

Again, the primary reference, Doyle, discloses a system for automatically invoking an external application (e.g., a JPEG viewer program) to interact with (and/or display) an embedded object found in a hypermedia document. Doyle teaches that an HTML document can include a tag for each embedded object, specifying the application program that is to be used with each such object.

The Action construes this tag of Doyle as meeting the claimed requirement of “a context or environment identifier.” However, it does not. Doyle’s tag identifies an application program. Even giving the claim terminology the “broadest reasonable interpretation,”³¹ Doyle does not teach this element of applicants’ claim.

The MPEP counsels:

PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.

In ordinary usage by an artisan, a “context or environment identifier” would not be understood to embrace Doyle’s tag, which serves as a “program identifier”³². This is made particularly clear when “enlightenment” from applicants’ written description is considered. That description explains:

In other cases, an option menu needn't be presented – the correct response is inferred from the context or environment. Consider a drivers' license that is watermarked with identification of the owner. If presented to an email kiosk 12 at an airport, the decoded watermark may be used to look-up an email account corresponding to that individual, and download new mail. If the same drivers license is presented to a check-in kiosk, the decoded watermark may be used to look up that person's flight reservation and issue a seat assignment. In both cases the kiosks can be essentially

³¹ MPEP § 2111.

³² December 3, 2004, Action, page 3, line 12.

*identical. One, however, identifies itself to the router/product handler as an email kiosk, the other as a check-in kiosk. The response undertaken by the router/product handler differs accordingly.*³³

Thus, the same decoded watermark data is used to achieve different ends, depending on context/environment.

Further enlightenment is offered later in Applicants' specification, where different "environments" are described as comprising, e.g., home/office/car, etc:

Primary Information includes the Application Version, Watermark Type, Watermark Serial Number, Context and Environment.

- *Application Version: used by the product handler to modify its actions, typically for backwards compatibility*
- *Watermark Type: top 9 bits of the illustrative watermark payload. Used by the product handler in processing the Watermark Serial Number*
- *Watermark Serial Number: remainder of the watermark payload. Provides the index used by the product handler to access the watermark in the registration database*
- *Context: instructs the product handler to modify/refine its action based on the consumer request's context*
- *Environment: instructs the product handler to modify/refine its action based on the consumer request's environment. (The environment may be specified, e.g., as home, office, car, portable appliance, etc.)*

Again, an artisan would not understand Doyle's application-program-specifying tag to comprise the claimed limitation.

Thus, even if Doyle were combined with Moskowitz, the claimed arrangement could not result.

Again, a further problem with the obviousness rejection of claim 10 is the Examiner's deficient rationale for combining Doyle and Moskowitz. Ignoring the shortcoming of Doyle noted above, but noting Doyle's failure to provide any teachings concerning watermarks (*i.e.*, the claimed "watermark detector," "watermark-related software program," and "detected watermark"), the Action states only:

³³ Specification, page 25, line 25 – page 26, line 5.

*It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize watermark data in Doyle with because it would have enabled distributing copyrighted contents to a plurality of users in the network.*³⁴

Again, this rationale evidences hindsight, rather than obviousness. There is no reference to any suggestion in the art leading to the arrangement proposed; there is no reference to any problem with Doyle's system for which Moskowitz proposes a solution; the two references do not even concern the same field of endeavor. Again, the Action has started with applicants' claim, and worked backwards to bootstrap a justification.

Either of the above two grounds of traverse is sufficient to show that the Office has failed to establish *prima facie* obviousness. Accordingly, the rejection of claim 10 should be reversed.

9. Claim 11 (§ 103: Doyle + Moskowitz)

Claim 11 depends from claim 10, and is similarly allowable. Claim 11 is also independently allowable. The claim reads:

11. The apparatus of claim 10, wherein said packet of data also includes address information identifying the apparatus.

Claim 11 thus requires an apparatus operable to transmit a packet of data to a remote system, where the packet comprises:

- (a) a context or environment identifier;
- (b) at least a portion of a detected watermark; and
- (c) address information identifying the apparatus.

The art again fails to teach an apparatus that transmits address information identifying the apparatus, together with the other enumerated information, in packet form.

Again, there is a reference to "addresses" in Moskowitz's specification. It is found in the very first paragraph in column 1, and states:

³⁴ December 3, 2004, Action, page 4, lines 3-6.

The watermarks can also serve to allow for secured metering and support of other distribution systems of given media content and relevant information associated with them, including addresses, protocols, billing, pricing or distribution path parameters, among the many things that could constitute a "watermark."

However, this sentence is understood to indicate that the “addresses” are addresses associated with the *media content*. There appears to be no teaching of address information “identifying the apparatus” that sent the packet of data, and there is certainly no teaching of transmitting address information identifying an apparatus in the same packet as an identifier of context or environment, as required by claim 11.

Again, Doyle does not have any teaching remedying this deficiency. (The Examiner notes that a file sent from a server to a client browser includes the client’s IP address. However, the “address” required by claim 11 is the address of the (claim 10) apparatus having a watermark detector, and which is operable to transmit a context/environment identifier. Doyle has no teaching on this point.)

Accordingly, even if Doyle and Moskowitz were combined, the invention of claim 11 could not result.

Moreover, the Action has again failed to present a cognizable rationale that would have led an artisan to any arrangement in which an apparatus sends a packet of data including address information identifying itself. The Action is silent on any motivation for such a modification to the art.

Again, *prima facie* obviousness has not been established, and reversal of the rejection of claim 11 is thus required.

10. Claim 12 (§ 103: Doyle + Moskowitz)

Claim 12 is like claim 9, but depends from claim 10 rather than claim 7.

Claim 12 is allowable for its dependence on allowable claim 10. Claim 12 is also independently allowable. The claim reads:

12. A system comprising the apparatus of claim 10 together with said remote system, the remote system including a router and plural handlers, the router directing data from said packet to one of said handlers depending on data within said packet.

Again, the art fails to teach or suggest “plural handlers,” so the references cannot be jigsawed to yield the claimed apparatus. And again, no rationale is provided that would have led an artisan to the arrangement claimed. (The same single-sentence deficient rationale offered for claim 7 was also offered for each of claims 8-12 as well.) Again, the rejection must be reversed.

11. Claim 13 (§ 103: Doyle + Moskowitz)

Claim 13 was rejected under §102, as discussed above. The claim is also rejected under § 103. The propriety of such repeated -rejection of the claim seems questionable, in view of the MPEP’s mandate that a claim should be rejected only on the “best available art.”³⁵

On the merits, certain of the shortcomings of Moskowitz - as they relate to claim 13 – are detailed above. These shortcomings are not cured by Doyle.

For example, Doyle does not suggest an arrangement that is responsive to watermark data “to initiate delivery of audio or video data.”

Thus, the art cannot be combined to yield the claimed arrangement.

Moreover, the rationale proposed by the Examiner to justify the Doyle+Moskowitz combination does not explain why an artisan would find it obvious to modify and jigsaw together the references to try and arrive at the claimed combination. Instead, the rationale states only:

*It would have been obvious to one skilled in the art to recognize that delivered data would have included any typical web contents including audio, video, advertisement, software programs, etc.*³⁶

As will be recognized, the claimed arrangement does not result simply by substituting audio, video, advertising or software programs for the teachings of the art. Here again, hindsight appears to have guided the combination.

³⁵ MPEP § 706.02.

³⁶ December 3, 2004, Action, page 4, lines 14-17.

Again, the Office has not met its burden, and the rejection should be reversed.

12. Claim 14 (§ 103: Doyle + Moskowitz)

Like claim 13, dependent claim 14 is also rejected under § 103, as well as § 102. Again, this seems contrary to Office policy.

On the merits, Doyle does not cure the deficiencies (discussed above) left by Moskowitz. Again, nothing in the cited art is responsive to watermark data sent from a remote computer, to initiate delivery of audio or video data to said remote computer.

Again, the rationale offered in the Action to support the combination (the same rationale quoted above, and offered for each of claims 13-16) is deficient.

Again, the obviousness rejection should be reversed.

13. Claim 15 (§ 103: Doyle + Moskowitz)

Like claim 13, independent 15 is also rejected under § 103, as well as § 102. Again, this seems contrary to Office policy.

On the merits, Doyle does not cure the deficiencies (discussed above) left by Moskowitz. Again, nothing in Doyle or Moskowitz teaches or suggests an arrangement responsive to watermark data sent from a remote computer, to initiate delivery of advertisement data to said remote computer.

Again, the rationale offered in the Action to support the combination (the same rationale quoted above, and offered for each of claims 13-16) is deficient.

Again, the obviousness rejection should be reversed.

14. Claim 16 (§ 103: Doyle + Moskowitz)

Like claim 13, independent 16 is also rejected under § 103, as well as § 102. Again, this seems contrary to Office policy.

On the merits, Doyle does not cure the deficiencies (discussed above) left by Moskowitz.

Again, nothing in Doyle or Moskowitz teaches or suggests an arrangement responsive to watermark data sent from a remote computer, to initiate delivery of updated software to said remote computer.

Again, the rationale offered in the Action to support the combination (the same rationale quoted above, and offered for each of claims 13-16) is deficient.

Again, the obviousness rejection should be reversed.

VIII. CONCLUSION

The rejections under § 102 fail because the art does not teach each of the claims' limitations. The rejections under § 103 fail because the Office has not established *prima facie* obviousness. Accordingly, the Board is requested to reverse all of the outstanding rejections, and remand to the Examiner for issuance of a notice of allowance.

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Respectfully submitted,

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APPENDIX A
PENDING CLAIMS

1. (Withdrawn) A method comprising:
 - sensing an object identifier from a first object;
 - sending said first object identifier from a first device to a second device;
 - in response, at said second device, identifying address information corresponding to said first object identifier and sending same to the first device;
 - initiating a link from the first device in accordance with said address information;
 - at said second device, identifying additional objects related to said first object;
 - identifying additional address information corresponding to said additional objects; and sending said additional address information to the first device;
 - storing said additional address information in a memory at the first device;
 - wherein, if an object included among said identified additional objects is sensed by the first device, the corresponding address information can be retrieved from said memory in the first device without the intervening delays of communicating with the second device.

2. (Withdrawn) A database method comprising:
 - generating a database record including plural data fields;
 - generating a file corresponding to said database record and including data from at least certain of said fields;
 - electronically distributing a copy of the file to each of plural recipients;
 - one of said recipients adding data to a copy of the file, or changing data in a copy of the file, and sending the file to the database;
 - updating the database record in accordance with said changed file;
 - generating a new file corresponding to the updated database record and including data from at least certain of said fields; and
 - electronically distributing a copy of the new file to each of said plural recipients.

3. (Withdrawn) A system for linking from physical or digital objects to corresponding digital resources, comprising:

registration means for receiving data relating to an object, including its identity and owner, and associating same in a database with data relating to a corresponding response;

originating device means for sensing data from an input object, processing same, and forwarding same to a routing means;

routing means for processing the processed data from the originating device means, logging information from same, and forwarding at least certain of said processed data to a product handler means; and

product handler means for providing a response to the originating device means in accordance with the information provided thereto by the routing means.

4. (Withdrawn) The system of claim 3 in which the routing means includes means for checking information in the database.

5. (Withdrawn) The system of claim 3 in which the registration means includes means for generating an encapsulating file and means for distributing said file to predetermined parties.

6. (Withdrawn) A system as described in the foregoing detailed description.

7. (Original) An apparatus including a watermark detector and a watermark-related software program, operable to transmit a packet of data to a remote system, said packet of data comprising (a) an identifier of said software program, and (b) at least a portion of a detected watermark.

8. (Original) The apparatus of claim 7, wherein said packet of data also includes address information identifying the apparatus.

9. (Original) A system comprising the apparatus of claim 7 together with said remote system, the remote system including a router and plural handlers, the router directing data from said packet to one of said handlers depending on data within said packet.

10. (Original) An apparatus including a watermark detector and a watermark-related software program, operable to transmit a packet of data to a remote system, said packet of data comprising (a) a context or environment identifier, and (b) at least a portion of a detected watermark.

11. (Original) The apparatus of claim 10, wherein said packet of data also includes address information identifying the apparatus.

12. (Original) A system comprising the apparatus of claim 10 together with said remote system, the remote system including a router and plural handlers, the router directing data from said packet to one of said handlers depending on data within said packet.

13. (Original) A networked computer system, responsive to watermark data sent from a remote client application to initiate delivery of audio or video data.

14. (Original) The networked computer system of claim 13, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of audio or video data to said remote computer.

15. (Original) A networked computer system, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of advertisement data to said remote computer.

16. (Original) A networked computer system, responsive to watermark data sent from a software program on a remote computer, to initiate delivery of updated software to said remote computer.